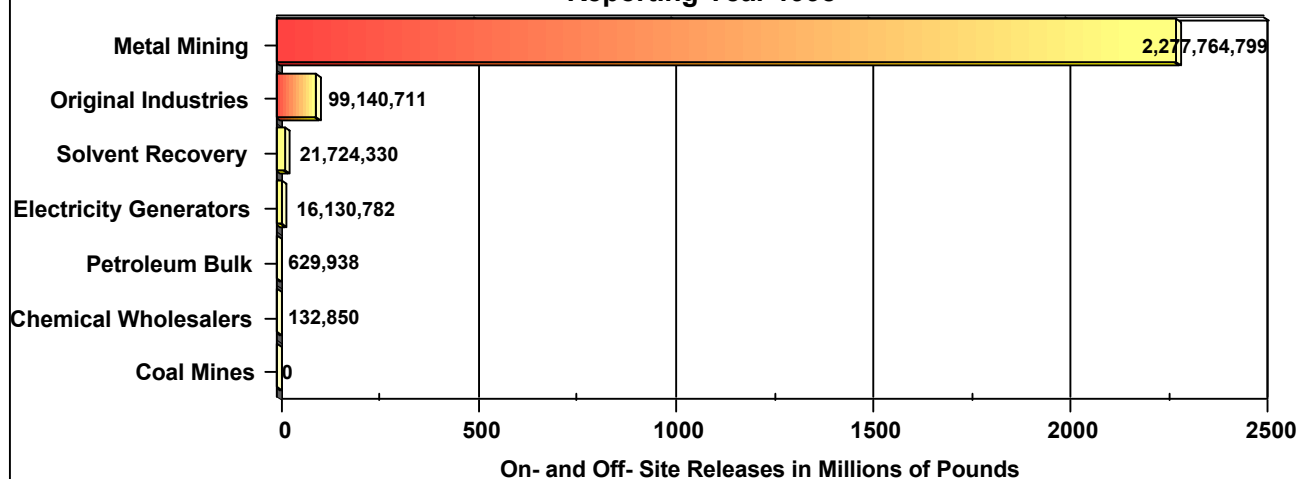




EPA Region 9 1998 Toxics Release Inventory

U.S. EPA Region 9
Arizona, California,
Hawaii, Nevada,
and the Pacific
Islands

TRI On-site and Off-site Releases* in Region 9
Reporting Year 1998



The 1998 Public Data Release

EPA has just made public the 1998 data on toxic chemicals that were released to the Nation's air, water and land. This information comes from the Toxics Release Inventory (TRI) program, commonly known as community right-to-know. In addition to information from the manufacturing sector and from federal facilities, this marks the first year that data is available on seven new industry sectors. Nationwide, 23,487 facilities reported 7.3 billion pounds of releases* in 1998. In Region 9, 1,880 facilities reported 2.4 billion pounds of releases, about 1/3rd of the Nation's total.

** Release is defined as the amount of a toxic chemical released on-site (to air, water, underground injection, landfills and other land disposal), and the amount transferred off-site for disposal. When comparing data from year to year, the data is normalized to account for changes in the list of reportable chemicals and other variables.*

The Toxics Release Inventory (TRI) Program

The Toxics Release Inventory (TRI) is a public database of toxic releases from certain industrial sectors. The program was borne from the Emergency Planning and Community Right-to-Know Act of 1986. The goal of the Act is to inform communities of chemical hazards and to protect them against chemical accidents. The Act mandates that certain businesses submit annual reports detailing the release and management of listed toxic chemicals. The public can access this information through the Internet and through summary reports. This program has given people unprecedented direct access to toxic release information from facilities in their communities. Facilities, government, and the public have used this data to target pollution prevention efforts and reduce toxic releases.

It is important to note that release should not be directly equated with risk. To evaluate risk, release data must be merged with information about chemical toxicity, site-specific conditions, and exposure. In

addition, this data does not indicate whether a facility is violating environmental laws. Many of the substances reported through this program are subject to state and federal regulations designed to protect human health and the environment.

Original Industries-the 1998 Data

Manufacturing industries have been reporting their releases since 1987 and federal facilities started reporting in 1995. In the last 10 years, reported releases from these industries have fallen about 45% for the Nation. In Region 9, releases have fallen 53%.

For the Nation, 21,517 manufacturing facilities reported 2.38 billion pounds of releases. In Region 9, 1,655 facilities from this sector reported 99.1 million pounds of releases. Between 1995 and 1998, national releases for these industries dropped 5.3%, and in Region 9, releases increased 1.3%. All of the increase in Region 9 is attributed to a single smelter in Arizona, the Asarco Ray Complex in Hayden. If that facility were removed from the total, Region 9 releases between 1995 and 1998 would fall 32.5%.

New Industrial Sectors-the 1998 Data

Most of the releases for both the Nation and the Region are from the new industry sectors. The new sectors account for about two-thirds of the Nation's total releases and about 96% of the Region's total releases. The new sectors are: metal and coal mining, electricity generation, commercial hazardous waste treatment, solvent recovery, petroleum bulk terminals, and wholesale chemical distributors. For the country as a whole, 1,970 facilities from these sectors reported nearly 5 billion pounds of toxic chemical releases. For Region 9 states and territories, 225 new facilities reported 2.3 billion pounds of toxic chemical releases.

Metal Mining

The metal mining sector has profoundly impacted both the national and the regional release profile, accounting for the most releases of any new or original sector. National metal mining releases total 3.5 billion pounds, or 48% of the Nation's total releases. Region 9's releases were 2.3 billion pounds, or 31% of the Nation's total releases.

Many mines extract, move, store, process, and dispose of large amounts of waste rock and ore--materials which often contains low concentrations of naturally occurring

metals. The vast majority of this material is placed in surface impoundments or on the land, and the metals are reported as on-site releases to land. This previously buried material is exposed to potential leaching by rain, snow, and acid mine drainage, and must be carefully managed and monitored to prevent any surface water or ground-water contamination. There are also air releases from ore processing and metal refining operations.

Commercial Hazardous Waste Treatment and Solvent Recovery Services

The second largest sector for releases in Region 9 is commercial hazardous waste treatment facilities and solvent recovery services. Nationally, releases from this sector totaled 281.8 million pounds. Region 9 releases were 21.7 million pounds, or about 8% of the Nation's total from this sector. Most of the releases from this industry were to on-site landfills.

Hazardous waste treatment facilities treat, store, and dispose of hazardous waste. These facilities handle large quantities of materials which may contain heavy metals, asbestos and other chemicals. Solvent recovery services collect, recycle, and redistribute solvents. Since many of the solvent recovery facilities are co-located with commercial hazardous waste treatment facilities, their data was aggregated.

Electricity Generating Facilities

The third largest sector for releases in Region 9 is electricity generation. In 1998, national releases from this sector totaled 1.12 billion pounds. Region 9's releases were 16.1 million pounds. Air releases of acids and the disposal of metal-containing ash to on-site landfills made up the majority of this sector's releases in Region 9.

Only facilities that combust coal or oil to generate electricity for distribution in commerce need to report to the Toxics Release Inventory. Coal and oil contain metals that are released to the air during combustion. The ash that remains after coal is combusted will also contain metals. Large quantities of this ash may be disposed of in on- or off-site landfills. Toxic chemicals may also be formed during the combustion process. These include acid aerosols like hydrogen fluoride, hydrochloric acid, and sulfuric acid.

Petroleum Bulk Terminals

For the nation, this industry reported 6.3 million

pounds of releases in 1998. In Region 9, releases were 630 thousand pounds. Most of the releases in both the nation and Region 9 were to the air. This sector is engaged in the wholesale distribution of petroleum products. Chemicals releases most frequently reported were for typical constituents of gasoline like benzene, toluene, ethyl benzene, xylene, and in California, methyl tert-butyl ether.

Wholesale Chemical Distributors

Nationally, this industry reported releases of 1.6 million pounds, with the vast majority of releases going to the air. In Region 9, there were 133 thousand pounds of releases. In the course of distributing chemicals, many wholesalers repackage and sometimes reformulate their products, which leads to releases to air.

Coal Mining

Nationally, this industry reported 13.3 million pounds of releases, mostly to the land. No coal mines reported in Region 9.

On-line Access

For national information on data release, see <http://www.epa.gov/tri>

The TRI data is available through the Envirofacts Warehouse, EPA's premier Internet site for distributing environmental information at <http://www.epa.gov/enviro>

For general information on the Toxics Release Inventory, including reporting requirements for businesses, go to <http://www.epa.gov/region09/toxic/tri>

Information and Assistance

We will be more than happy to answer your questions and assist you in learning more about the TRI program in Region 9.

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